

O I P E  
JUL 21 2004  
S C 17  
PATENT & TRADEMARK OFFICE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Serial No. .... 09/912,616  
Filing Date ..... July 24, 2001  
Inventor ..... Vladimir Segal et al.  
Assignee ..... Honeywell International Inc.  
Group Art Unit ..... 1742  
Examiner ..... Morillo, Janell Combs  
Attorney's Docket No. .... 30-5004-DIV3  
Title: Alloys Formed from Cast Materials Utilizing Equal Channel Angular Extrusion

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

To: Mail Stop RCE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

From: Jennifer J. Taylor, Ph.D. (Tel. 509-624-4276; Fax 509-838-3424)  
Wells St. John P.S.  
601 W. First Avenue, Suite 1300  
Spokane, WA 99201-3828

Dear Sir:

The Examiner's attention is directed to the references which are listed on the attached Form PTO-1449 and copies of which are attached.

Citation of these references is respectfully requested.

Respectfully submitted,

Dated: July 21, 2004

By:

Jennifer J. Taylor  
Jennifer J. Taylor, Ph.D.  
Reg. No. 48,711

LIST OF ART CITED BY APPLICANT  
(Use several sheets if necessary)APPLICANT  
Vladimir Segal et al.FILING DATE  
July 24, 2001GROUP  
1742

## U.S. PATENT DOCUMENTS

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
O I E	AA						

## FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	AM	JP362089543A	04-1987	JP (abstract)				

## OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)

	AO		F. J. Humphreys et al., "Developing stable fine-grain microstructures by large strain deformation", Phil. Trans. R. Soc. Lond. A, June 15, 1999, Vol. 357 #1756, pp. 1663-1681.
	AP		S. Ferrasse et al., "Texture evolution during equal channel angular extrusion Part I. Effect of route, number of passes and initial texture", Materials Science and Engineering, Vol. 368, March 15, 2004, pp. 28-40.
	AQ		V.M. Segal, "Equal channel angular extrusion: from macromechanics to structure formation", Materials Science & Engineering A271, November 1, 1999, pp. 322-333.
	AR		Ruslan Z. Valiev et al., "SPD-Processed Ultra-Fine Grained Ti Materials for Medical Applications", Advanced Materials & Processes, December 2003, pp. 33-34.
	AS		Segal et al., "Plastic Working of Metals by Simple Shear", Russian Metall. Vol. 1, pp. 99-105, 1991.
	AT		M. Furukawa et al., "Microhardness Measurements and the Hall-Petch Relationship in an Al-Mg Alloy with Submicrometer Grain Size", Acta Mater. Vol. 44, No. 11, pp. 4619-4629, 1996.
	AU		Yoshinori Iwahashi et al., "Microstructural Characteristics of Ultrafine-Grained Aluminum Produced Using Equal-Channel Angular Pressing", Metallurgical and Materials Transactions, Vol. 29A, pp. 2245-2252, September 1998.
	AV		R.Z. Valiev et al., "Bulk Nanostructured materials from severe plastic deformation", Progress in Materials Science, Vol. 45, 2000, pp. 103-189.
	AW		S. Ferrasse et al., "ECAE Targets with Sub-Micron Grain Structures Improve Sputtering Performance and Cost-of-Ownership", Semiconductor Manufacturing, Vol. 4, Issue 10, October 2003, pp. 76-92.

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

LIST OF ART CITED BY APPLICANT  
(Use several sheets if necessary)APPLICANT  
Vladimir Segal et al.FILING DATE  
July 24, 2001GROUP  
1742

## U.S. PATENT DOCUMENTS

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	AA						

## FOREIGN PATENT DOCUMENTS

*Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation
							Yes No
	AM						

## OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)

	AO	Clark et al, "Influence of Initial Ingot Breakdown on the Microstructural and Textural Development of High Purity Tantalum", Metallurgical Transactions, vol. 22A, pp. 2959-2968, December 1991.
	AP	Lyman et al., Metals Handbook, pub. by American Society for Metals, 8 <sup>th</sup> edition, 1961, pp. 15 and 18.
	AQ	Ferrasse et al., "Microstructure and Properties of Copper and Aluminum Alloy 3003 Heavily Worked by Equal Channel Angular Extrusion", Metallurgical and Materials Transactions A, Volume 28A, April 1997, pp. 1047-1057.
	AR	R. Z. Valiev et al., "Plastic Deformation of alloys with submicron-grained structure", Materials Science and Engineering, A137 (1991) pp. 35-40.
	AS	
	AT	
	AU	
	AV	
	AW	

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.